

WHAT IS CLAIMED IS:

1. A venting plug for use with a wet, lead-acid electric storage battery comprising a container and a cover defining at least one cavity, the cover defining at least one cylindrically shaped process hole associated with said cavity, said venting plug being adapted for insertion into said process hole to provide gaseous communication between said cavity and the atmosphere, the venting plug comprising:

a housing having a cylindrical plastic body and a top,

said body being molded of plastic and having

an axis,

a coupling portion having an outer surface, said coupling portion comprising at least a portion extending in a plane disposed at an angle to the axis, the outer surface of the coupling portion displaying at least one mold parting line that does not extend in a plane perpendicular to the axis, and

an outer sealing portion, said sealing portion comprising an outer annular sealing surface, said sealing surface displaying no mold parting line.

2. The venting plug as claimed in claim 1 further comprising a seal disposed adjacent said sealing surface and being elastically deformable between the sealing surface and the process hole.

3. The venting plug as claimed in claim 1 wherein the coupling portion comprises at least one flange that extends radially from the body.

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13 4. The venting plug as claimed in claim 3 wherein the coupling portion comprises a center cylindrical portion, and at least two the flanges extending radially from the cylindrical portion.

5. The venting plug as claimed in claim 4 wherein the parting line is disposed along an outside surface of the cylindrical portion.

6. The venting plug as claimed in claim 3 wherein the coupling portion comprises a center cylindrical portion, and the at least one flange is a thread which protrudes from the center cylindrical portion.

7. The venting plug as claimed in claim 2 wherein said outer sealing surface comprises a cylindrical portion which extends substantially parallel to the axis, and a planar portion which extends substantially radially from the cylindrical portion.

8. The venting plug as claimed in claim 2 wherein said top is heat sealed to the body.

9. The venting plug as claimed in claim 7 wherein the seal comprises a first surface disposed against the cylindrical portion, and a second surface disposed against the planar portion.

10. The venting plug as claimed in claim 1 wherein the sealing portion has a footprint having an inner diameter, and the coupling portion has a footprint, the

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coupling portion footprint being no larger than the inner diameter of the sealing portion footprint.

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11. The venting plug as claimed in claim 1 wherein the sealing portion comprises a sealing cylindrical portion and an annulus disposed adjacent the sealing cylindrical portion, the sealing cylindrical portion having an inner diameter, the coupling portion comprising a base portion from which two flanges extend, said base portion and flanges defining a perimeter that is no larger than the inner diameter of the sealing cylindrical portion.

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12. A wet, lead-acid storage battery comprising a container and a cover defining at least one cavity, the cover defining at least one cylindrically shaped process hole associated with said cavity, and venting plug being adapted for insertion into said process hole to provide gaseous communication between said cavity and the atmosphere, the venting plug comprising:

a housing having a cylindrical plastic body and a top,

said body being molded of plastic and having

an axis,

a coupling portion having an outer surface, said coupling portion comprising at least one coupling flange, at least a portion of the coupling flange extending in a plane disposed at an angle to the axis, the outer surface of the coupling portion displaying at least one mold parting line that does not extend in a plane perpendicular to the axis, and

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an outer sealing portion, said sealing portion comprising an outer annular sealing surface, said sealing surface displaying no mold parting line, a seal disposed adjacent said sealing surface and being elastically deformable between the sealing surface and the process hole.

13. A method of producing a venting plug for use with a wet, lead-acid electric storage battery comprising a container, a cover, the container and cover defining one or more cell cavities, the cover defining cylindrically shaped process holes associated with each cell cavity, said venting plug being adapted for insertion into said process holes to provide gaseous communication between said cell cavities and the atmosphere, the method comprising the steps of:

- providing a mold for molding a generally cylindrical venting plug body, said mold having an upper half and a lower half, said lower half comprising a solid plate for forming at least one sealing surface of the plug body without a parting line and at least one slide for forming at least one coupling flange along a peripheral surface of the venting plug body,
- molding a venting plug body having at least one sealing surface and a coupling flange,
- opening the mold, and
- demolding the venting plug body having a sealing surface that displays no mold parting line.

14. The method as claimed in claim 13 wherein the molding step comprises the step of molding a venting plug body having a substantially cylindrical portion from

which the coupling flange extends, the substantially cylindrical portion having an axis and displaying a mold parting line along a surface other than in a plane perpendicular to the axis.

15. The method as claimed in claim 13 wherein the molding step includes the step of molding a venting plug body having a coupling flange in the form of a threads extending about the body.

16. The method as claimed in claim 13 wherein the opening the mold step comprises the steps of sliding the at least one slide out of engagement with the molded body, and separating the upper and lower halves of the mold said step of molding a first material comprises the step of injection molding a polypropylene material.

17. The method as claimed in claim 16 wherein the opening step comprises the step of maintaining the lower half solid plate in contact with the molded body.

18. The method as claimed in claim 17 wherein the step of demolding comprises the step of advancing an ejector pin to eject the molded body from the lower half solid plate.

19. A mold for molding the body of a venting plug for use with a wet, lead-acid electric storage battery comprising a container, a cover, the container and cover defining at least one cell cavity, the cover defining a cylindrically shaped process hole associated said cell cavity, said venting plug having a body having at least one sealing

surface adapted to receive a seal and to be inserted into said process hole to provide gaseous communication between said cell cavity and the atmosphere, said body having at least one flange for coupling the venting plug to the cover, said mold comprising:

an upper half, and

a lower half, said lower half comprising

a solid plate for forming said sealing surface on said venting plug

body whereby said solid plate does not result in a mold parting line in said sealing surface,

at least one slide adapted to form said flange, said slide being slideably disposed such that the upper half and the solid plate are separable along a first axis, and said slide is moveable relative to the solid plate along a second axis disposed at an angle to the first axis whereby a parting line may be formed in the vicinity of the flange.

20. The mold as claimed in claim 19 comprising two slides for forming the coupling flange, said slides being moveable relative to the solid plate.